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**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF OREGON  
PORTLAND DIVISION**

**NORTHWEST ENVIRONMENTAL  
DEFENSE CENTER, WILDEARTH  
GUARDIANS, and NATIVE FISH  
SOCIETY,**

Plaintiffs,

v.

**U.S. ARMY CORPS OF ENGINEERS  
and NATIONAL MARINE  
FISHERIES SERVICE,**

Defendants,

and

**CITY OF SALEM and MARION COUNTY,**

Defendant-Intervenors,

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**Case No. 3:18-cv-00437-HZ**

**PLAINTIFFS' BRIEF ON EXPERT  
PANEL'S IMPLEMENTATION PLAN  
FOR USE OF LOWER REGULATING  
OUTLET AT DETROIT DAM**

Plaintiffs submit this brief to address the point of dispute that arose within the expert panel regarding the plan for using lower regulating outlets at Detroit Dam for temperature control. Importantly, the panel agreed that such use should occur to attempt to lower water temperatures below Detroit and Big Cliff dams in the fall during the Chinook salmon incubation period. The primary disagreement is over the amount and timing of water flows needed to best achieve that this year.

**A. Flows Needed For Best Use of Lower ROs.**

The expert panel recognized that existing water temperature management at Detroit Dam has failed to meet downstream temperature targets in fall as the reservoir level continues to drop. ECF 213-1 at 3. Water that exceeds target temperatures at this time accelerates Chinook salmon egg incubation, resulting in early emergence of fry, “and is considered a strong cause of poor Chinook recruitment.” *Id.* at 3, 9. Target temperatures in the North Santiam are 52°F in October and 46°F in November and December. *Id.* at 4. Use of the lower RO should provide additional cool water, improving temperature conditions for incubating fish downstream of the dam. *Id.* To gain the maximum benefit of temperature control, the plan calls for prioritizing use of the lower RO over use of the upper ROs for fish passage until the temperature gradient in the reservoir disappears (which would likely occur by the end of November). *Id.* at 6, 8.<sup>1</sup>

The lower RO at Detroit is not safe to operate unless the reservoir is at 1465’ or lower.

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<sup>1</sup> Plaintiffs’ experts noted from the beginning of discussions that interim measures (IM) 5-7 and use of the lower RO for temperature control are all interconnected and would necessitate modifying IM 5 to delay its start and address TDG issues. Federal Defendants insisted IM 5 would not be modified. It was not until 5:00 pm the date the plan was due that they finally acknowledged IM 5 would indeed need to be modified to prioritize use of the lower RO for temperature control. Thus, the panel plans to submit a separate document revising IM 5 rather than incorporating that modification into the implementation plan submitted September 8. Because that modification has not yet been filed with the Court, any points Plaintiffs want to raise about it will be included in their response brief due Sept 16.

*Id.* at 4-5. The Corps' modeling shows that the reservoir will still be 15 feet above the elevation needed to use the lower RO at the end of October. ECF 213-1 at 2-3. Yet, the plan states that by mid to late October, cold water from the lower RO will be needed. *Id.* at 8, 9. Use of the lower RO would continue until the reservoir becomes isothermal sometime in November. *Id.* Under current operations the project is releasing flows of 1,500 cfs, which is the minimum flow required during the Chinook salmon spawning season according to the 2008 BiOp. 2008 BiOp at 9-14 (flow objectives Sep 1-Sep 30 below Big Cliff are 1500 cfs minimum and 3000 cfs maximum). The Corps plans to maintain that rate of discharge at least through October 1. ECF 213-1 at 2. In modeling this operation, the Corps determined that the lower RO would not be serviceable until well into November. *Id.* at 2-3. Thus, the Corps' operation does not comport with the implementation plan's stated goal to bring the lower RO into service by mid- to late-October when it would be most useful for temperature control.

As Plaintiffs' experts explain, under current flows the lower RO would not be available for use until well into November. *Id.* at 12. Increased flows to lower the reservoir more rapidly must start now to achieve reservoir elevation 1465' by mid-October, which is when cooler water will likely be needed this year to try and stay within target water temperatures below the dam and not impair incubating salmon redds. *Id.* The Corps states that it will reassess on October 1 to determine if it needs to adjust flows but at that point, in order to achieve reservoir elevation 1465' by mid-October, discharges would have to be very high, likely exceeding 3500 cfs and creating excessive TDG below the dams.

Plaintiffs' experts recommend increasing flows now to 2,000 cfs, which would still require some additional increase Oct 1-15 but far less than what would be required under the federal experts' proposal. The federal experts oppose Plaintiffs' recommendation because of

concerns about dewatering redds when flows later drop to the incubation season minimum flows of 1,200 cfs. ECF 213-1 at 12. Yet 2,000 cfs flows during the spawning season are well within the flow limits set forth in the 2008 BiOp. 2008 BiOp at 9-14 (maximum flow objective of 3,000 cfs). Based on Mr. Schroeder's knowledge of the North Santiam River spawning habitat, Plaintiffs' experts do not believe a significant amount of additional spawning would occur when flows are at 2,000 cfs compared to flows at 1,500 cfs and therefore not many redds would be potentially dewatered if flows dropped later to 1,200 cfs.<sup>2</sup> In contrast, water temperatures that exceed targets during the incubation period affect *all* redds in the North Santiam below Big Cliff Dam. ECF 213-1 at 12. And by increasing flows to 2,000 cfs now, less drastic increases in flows would have to occur in early October to achieve 1465' by the middle of the month, thereby reducing levels of TDG during that period compared to the Corps' plan. Because October begins the wet season, inflows to the reservoir are less predictable and rain freshets would make it even more difficult to get the reservoir down to 1465' by the middle of the month without causing excessive flows and TDG if flows remain at 1,500 cfs until the end of September.

In sum, the experts all agree that use of the lower RO for temperature control should occur this fall. They also agree that temperature control should be prioritized over fish passage during the Chinook incubation period. Plaintiffs' experts believe that for this low-water year, being able to access the cooler water through the lower RO by mid-October is highly important to protect incubating salmon eggs from increasing water temperatures, and the federal experts

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<sup>2</sup> The RM&E plan calls for spawning surveys below the dams that will collect information on location of redds, which could be used to assess the proportion of redds located in areas accessible under flows between 1,500 and 2,000 cfs. These redds would be monitored for potential dewatering by measuring depth of water over the redds. ECF 213-1 at 10. This information would be important in future years to assess tradeoffs associated with temperature management because in most years the reservoir level will be higher than this year and thus flows to access the lower RO will likely have to be higher in September than this year.

appear to concede that use of the lower RO may be needed by mid-October. ECF 213-1 at 8, 9. The dispute is over the best way to achieve that. Under the Corps' modeling, the reservoir will not even reach 1480' until the end of October and Plaintiffs' experts do not believe reaching elevation 1465' by mid-October is reasonable without increasing flows to 2,000 cfs now. They believe that the benefit of improving water temperatures for all downstream incubating redds outweighs any adverse effect to the small number of redds that might be dewatered when flows later drop. Federal experts want to continue discharges at 1,500 cfs and wait until October 1 to reassess flows but do not reveal the flows that would be necessary to achieve reservoir elevation 1465' by Oct 15 and what the impacts of that would be on TDG or downstream spawning.

Plaintiffs therefore request the Court adopt the Detroit implementation plan with a modification that the Corps must immediately increase discharges through Detroit Dam to at least 2,000 cfs for the remainder of September, and then to whatever level is necessary to achieve reservoir elevation 1465' by October 15, or shortly thereafter, to begin use of the lower RO for temperature control.

## **B. Contacts Between Panel Members**

Finally, another issue has arisen concerning the workings of the expert panel. One of Plaintiffs' experts sought the opinion of NMFS' experts on the flow issue via an email communication (with other panel members and attorneys properly copied on the email). Counsel for Federal Defendants are taking the position that Plaintiffs' expert cannot communicate with other individual panel members because all of the Federal experts must speak with one voice. This position seems contrary to the Court's direction that the panel members should be having free and open discussions about the science, with no interference from the attorneys. As the Court has pointed out several times, NMFS biologists have been silent throughout this litigation

and Plaintiffs' experts are simply trying to seek their opinions, separate from the Corps experts' opinions, on the actions the panel is considering. Indeed, the federal experts should not be speaking with one voice, they should be offering their own independent opinions and conclusions.

As with all aspects of science, individual scientists have different expertise and often have differing opinions, and the experts on the panel are no different. Panel members should be able to direct specific questions and gain information from other individual members to take advantage of those different expertise and opinions. The experts from NMFS and the Corps should provide their individual opinions and should not be speaking with one voice simply because they are federal employees. Plaintiffs request the Court clarify that individual members of the expert panel can seek scientific information or scientific opinions from other individual members of the expert panel to assist with the open and free discussions needed to fully vet the injunction actions and arrive at implementation plans that are the best result for the fish.

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Respectfully submitted,

/s/Lauren M. Rule

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